Chemistry of Perfume

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**Introduction**

Each perfume comprises a base compound and a fragrance. The base is usually water or alcohol and the Ethyl alcohol is essentially utilized as it vaporizes rapidly on contact with the skin. The pertinent bases in perfume are Coumarin, beeswax, Phthalates, and Benzyl Benzotate. The fragrance can be artificial or can be extracted from plants and animals. In absence of the combination of base and fragrance combined, the odor may come as strong or too light. Thus, the primary components of perfume are perfume oil, water, and alcohol. It is imperative to highlight the role of chemistry and the molecular structure of alcohol, perfume oil, and water.

**Discussion**

 Perfume oil can be classified and divided into several kinds as a fragrance or synthetic oil taken from the peculiar source by techniques like headspace. It gets the print out of the chemical equation for the recreation of the smell and vacuums the smell from objects directly (“Scintillating Scents,” n.d.). Plants, animals and flowers can be harnessed to extract the oil. The oil comprises three fundamental parts as the heart note, top note and base note. Besides, there exist a wide range of alcohols which can be used. Distilled water (H2O) is utilized as an alternative to spreading the fragrance of the perfumes. However, one of the critical aspect involved in the process is dilution. Ethyl alcohol (C2H60) is prominently used as it assists to spread the fragrance. Several strengths of perfumes based on the amount of dilution supplemented in them. The perfume with the extreme concentration known as perfume is essentially fifteen to twenty five percent perfume oil. The least concentrated perfume known as cologne comprises ten percent perfume oil.

 In addition, the smell is a molecule which is sufficiently light to drift in the air. The molecular weight of fragrance material rarely exceeds 260 AMU and they are semi-volatile organic compounds(“Organic Chemistry Contributing to Flavours and Fragrances,” n.d.). Not every molecule, however, which drifts in the air, has a smell to be recognized by the nose. Carbon monoxide (CO) is an explicit illustration of such smell. There exist different categories of fragrances as woody, floral or citrus notes (“Chemistry of Scent and Fragrance,” n.d.). The modern trends of perfumes constitute the synthetic compounds which are altered to offer them distinct traits as enhanced odor. Jasmine, cardamon, nutmeg, sandalwood and lavender are the plant sources which are commonly used. The animal sources were also common once including musk but there use has been abrogated because of ethical reasons.

 Another method to make perfume is maceration wherein the raw components are saturated in oil water or solvent to craft the fragrances. The process of expression includes squeezing the aromatic oils and compressing materials. It is worthy to highlight enfleurage which is a process followed to draw out fragrances into oil base or fat and then extracting with alcohol(*The Chemistry of Fragrances*, 2006). Moreover, the perception of each person matters and the genetic code also makes people experience distinct smell receptors that make the smell to be dissimilar to every person.

**Conclusion**

The chemical reactions as a result of light are also capable of morphing the smell of perfumes. The energy inside light can advance to break the bonds present in the molecules of the fragrance. Likewise, bright sunlight can also destruct the perfumes in a week. All these aspects call for the need of keeping the perfumes in a dark room at the room temperature. It is also imperative to remember several perfumes may cause dermatitis, allergies and hormone disruption. The presence of synthetic compounds in perfumes as galaxolide and plasticizing agent can cause adverse effects.

References

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